



refinex[®] refitherm[®]

Cast steel gear pumps for refineries
and petrochemical processes

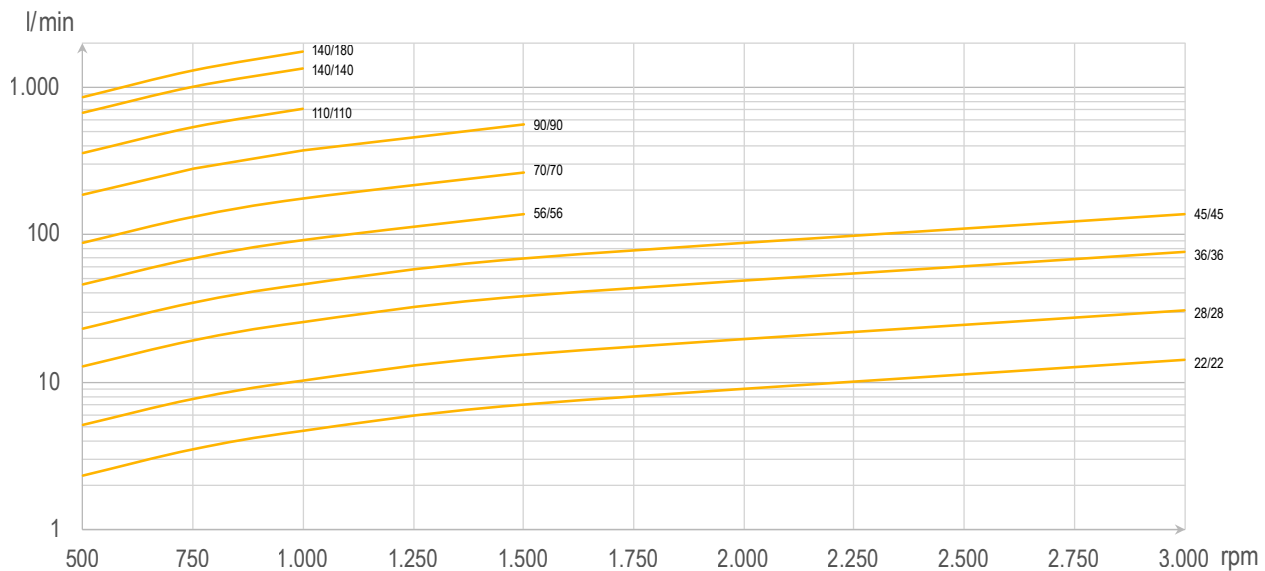


Refinery and industrial plant applications are challenging. High process pressures and high temperatures are commonplace in such environments. Precisely in these environments MAAG gear pumps develop their full potential. Thanks to the extensive range of components and materials of constructions to choose from, MAAG gear pumps can be configured to suit customers specific requirements and therefore, are far superior to standard pumps in terms of performance and reliability.

Your benefits

- Wide viscosity, temperature, and pressure range
- High efficiencies (due to tolerances and small clearances being modified in line with applications)
- Precise displacement volume
- Self-priming
- Reliability and longevity
- Suitable for API 676

refinex® refitherm® 22-140 flow rate @ 0 bar ΔP



Application limits:

Viscosity:	0.3 to 4,000,000 mPas
Temperature:	-30 to 320 °C
Suction pressure:	Vacuum to 100 bar
Discharge pressure:	Vacuum to 300 bar
Flow rate¹⁾:	0.5 to 1,750 l/min

Technical specifications:

Housing: ■ Cast steel



Gear shafts: ■ Stainless steel
■ Nitrided steel (spur and helical)
■ Nitrided steel coated



Bearing²⁾: ■ Manganese bronze ■ Nitrided steel coated
■ Sintered iron ■ Hardened tool steel
■ Synthetic carbon ■ Bronze – CuAl
■ Steel with carbon inserts
■ Nitrided steel



Shaft seal: ■ Lip seals and packing
■ Single or double mechanical seal
■ External mechanical seal
■ Sealing medium or heating medium connections available
■ Magnetic coupling with single or double containment shell



Connections: ■ SAE, CETOP, DIN, and ANSI flanges

Heating: ■ Electrical heating by cartridges optional for refinex®
■ Integrated channels for heating / cooling by means of steam or liquids for refitherm®

A range of typical pumping media

- Emulsions
- Sludges and condensates
- Additives
- Resins
- Cellulose derivatives and pulps
- Silicones
- Adhesives and hot-melt adhesives
- Paints and varnishes
- Waxes and paraffins
- Fertilizers
- Mineral oils and fats
- Fuels
- Petrochemical products

Certificates³⁾

- ATEX certificate
- 3.1 certificate
- German Air Quality certificate (TA-Luft)
- Performance test certificates

Options

- Electrical heating
- Heated seals
- Bi-directional operation
- Special modifications for demanding applications

¹⁾ Higher flow rates upon request.

²⁾ Other materials and designs available.

³⁾ Other certificates and conformities upon request.

